REMARKS

By this amendment, claims 1, 5 and 9 have been amended. No claims have been cancelled. Claims 15 – 28 have been added Hence, Claims 1-28 are pending in the Application. Each issue raised in the Office Action is addressed hereinafter.

SUMMARY OF REJECTIONS/OBJECTIONS

Claims 1 - 5 and 10 - 14 were rejected under 35 U.S.C. 102(e) as being anticipated by US Patent No. 6,480,836, hereafter Colby.

Claims 6 – 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Colby in view of U.S. Patent No. 6,272,502, hereafter Lieuwen.

Claim 1

Claim 1 as amended, recites:

a database management system receiving a request to generate a materialized
      view that contains objects of an object class;
said database management system performing operations on said objects as
      instances of said object class; and
wherein said object class defines one or more attributes and one or more routines
      to invoke to operate on the state of the objects of said object class.

Claim 1 is rejected because, in part, the Office Action correlates a table to an object class and correlates rows to instances of an object class, i.e. a table. Applicant admits that, in a relational database system, a table definition defines a table and its columns and column datatypes, and that rows in the table have column values having the datatype of the columns. However, those of ordinary skill in the art do not construe a table as an object class and rows as instances of that object class. That is why those of ordinary skill in the art distinguish database systems that support only relational

constructs and those that not only support relational constructs but also object-oriented constructs, as a relational database system and object-relational database system.

Nevertheless, Applicant has amended claim 1 to further define an object class by incorporating several defining features of an object class and the object oriented paradigm. One of those features is that the object class "define[s] ... one or more routines to invoke to operate on the state of the objects of said object class." Support for this limitation may be found in the application. (page 2, lines 10 - 14)

Assuming that the table can be correlated to the object class and the rows can be correlated to instances of the object class, as the Office Action has done, the cited art nevertheless fails to teach object classes that "define ... one or more routines to invoke to operate on the state of the objects of said object class." Nothing in Colby or the cited art suggests in anyway that a table or its definition define routines to invoke to operate on the state of the rows. Therefore, the cited art fails to teach all the limitations of claim 1. Claim 1 is therefore patentable. Reconsideration and allowance of claim 1 is respectfully requested.

Claim 5

Claim 5, as amended, recites:

performing an operation on said objects by invoking a routine defined by said object class.

As explained with respect to claim 1, the cited art fails to teach an object class that defines a routine. Therefore, the cited art cannot possibly teach invoking a routine defined by an object class, as claimed.

The Office Action alleges that Colby teaches the limitation of claim 5 at col. 7, lines 53 – 61. The Office Action cites this passage without identifying anything in the

passages that correlates to a routine associated with an object class, or even a routine. In an Office Action "the particular part relied on must be designated as nearly as practicable … The pertinence of each reference, if not apparent, must be clearly explained …" (37 C.F.R. § 1.104; MPEP 707). The pertinence of the cited excerpts is not apparent and is not explained at all. Instead, for the rejection of claim 5, as well as other rejections, a large passage of the reference is simply identified in a non-specific way. Certainly, if the passage taught of a routine associated with an object class, or even a routine, the Office Action could have readily identified the routine. The failure to specify what could be correlated to such a routine is tantamount to admitting that Colby does not describe what the Office Action alleges it to describe.

Perhaps the Office Action has mistaken the following passage as a teaching of a routine: "If users *routinely* submit queries that request sales totals per some time period, per some store or geographical area (e.g., per day, per region or per month, per state), the database administrator might define a Store_Sales table 64 that contains sales totals for all products and all promotions per day, per store." (emphasis added) Obviously, the term "routinely" would not construed by those of ordinary skill in the art as the routine required by claim 5.

Claim 12

Claim 12, recites:
said materialized view is associated with one or more base tables;
a base table of said one or more base tables includes a base column typed as an
 object reference; and
wherein the step of creating said materialized view includes creating a particular
 column that:
 corresponds to said base column, and
 is typed as an object reference.

Applicant has thoroughly reviewed Colby and has not found any teaching of a "base column typed as an object reference" and "creating a particular column that: corresponds to said base column, and is typed as an object reference."

The Office Action alleges that Colby teaches the limitations of claim 12 at col. 12, lines 18 – 47). Again, the Office Action cites a large passage without identifying an anything in the passage that correlates to elements in the claim. What, for example, in these passages could possibly be correlated to an object reference? Certainly, if the passage taught of an object reference the Office Action could have specifically identified one in the passage. The failure to specify what in the cited art is correlated to an object reference is tantamount to admitting that Colby does not describe what the Office Action alleges it teaches.

Based on the foregoing, Office Action has failed to establish that claim 12 is unpatentable. Claim 12 is patentable. Reconsideration and allowance of claim 12 is respectfully requested.

Claim 9

Claim 9 recites:

said materialized view includes an object column defined by said object class,

the object class defines attributes;

the step of creating said materialized view includes creating a container table that

includes corresponding columns that correspond to said attributes and that

hold values for said attributes;

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Colby in view of Lieuwen. Colby and Lieuwen, alone or in combination, fail to teach all the limitations of claim 9.

For example, as explained with respect to claim 1, Colby fails to teach of an object class, as defined by claim 1. In addition, Applicant has thoroughly reviewed Lieuwen and has not found any teaching of an object class as required in claim 1. In fact,

the Office Action has not even alleged that Lieuwen teaches an object class. If Colby and Lieuwen, alone or in combination, fail to teach an object class, they cannot possible teach an "object column defined by said object class", much less "creating a container table that includes ... columns that correspond to said attributes" "defined by said object class", as required by claim 9.

Therefore, claim 9 is not obvious in light of Colby and Lieuwen, alone or in combination, and claim 9 is patentable. Reconsideration and allowance of claim 9 is respectfully requested.

Finally, the Office Action cites large passages without identifying anything in the passages that correlates to elements in claim 9. What, for example, in the passages could possibly be correlated to an object column. Certainly, if the passages taught of an object column the Office Action could have specifically identified one in the passages. The failure to specify what in the cited art is correlated to an object column as well as other elements of claim 9 is tantamount to admitting that the cited art does not describe what the Office Action alleges it teaches.

III. Pending Claims

The pending claims not discussed so far are dependant claims that depend on an independent claim that is discussed above. Because each of the dependant claims include the limitations of claims upon which they depend, the dependant claims are patentable for at least those reasons the claims upon which the dependant claims depend are patentable. Removal of the rejections with respect to the dependant claims and allowance of the dependant claims is respectfully requested. In addition, the dependent claims introduce additional limitations that independently render them patentable. Due to the fundamental difference already identified, a separate discussion of those limitations is not included at this time.

For the reasons set forth above, Applicant respectfully submits that all pending claims are patentable over the art of record, including the art cited but not applied. Accordingly, allowance of all claims is hereby respectfully solicited.

The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application.
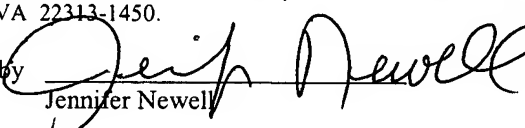
Respectfully submitted,

HICKMAN PALERMO TRUONG & BECKER LLP

Dated: March _____, 2005

Marcel K. Bingham
Reg. No. 42,327

2055 Gateway Place, Suite 550
San Jose, CA 95110
Telephone No.: (408) 414-1080 ext.206
Facsimile No.: (408) 414-1076

CERTIFICATE OF MAILING
I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

on March ___, 2005 by _____
Jennifer Newell